

## Outcome-Based Vocational Rehabilitation: Measuring Valuable Results

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### ABSTRACT

This case study illustrates one of the many possible ways to implement Kaufman's Organizational Elements Model (1992, 2000) for identifying and aligning organizational results and the means to achieve them. The model was applied in the context of a needs assessment effort between the Florida State University's Office for Needs Assessment & Planning (ONAP) and the Vocational Rehabilitation Program at Florida Division of Blind Services (FDBS). Conducting

this study and finding data that had such radical implications for decision-making was life altering for many of the stakeholders, who up until that point were heavily focused on processes and resources, or at best, on Micro-level results. Appropriate actions were taken to improve the performance system, but overall, one of the most significant contributions of this project was a new-found focus on results, valuable results, and appropriate measures of success.

### Introduction

All organizations are after results that, whether organizational members consciously understand or not, should be aligned at all levels of the organization. Kaufman's Organizational Elements Model (OEM) (Kaufman, 1992, 2000) can be used as a framework for identifying and aligning results at all levels, with the primary purpose of ensuring that the energy and other precious resources an organization invests will ultimately deliver worthwhile outcomes in the most efficient and effective way. Without taking the time to do this, organizations run the risk of supporting *freeloaders*, that is, programs, projects, or activities within the organization that are not linked to any worthy Outcome and add zero value while consuming

organizational resources that might be better invested elsewhere.

Creating a roadmap of useful results, along with the means that support them not only lights the road ahead of us, but also provides us with a framework for both a needs assessment and an evaluation. With this in place, we can readily identify organizational and performance gaps that direct our selection of worthwhile activities and resources, as well as later determine whether these were in fact the *right* solutions. Results, however, cannot always be directly measured and may require the identification of metrics that indicate whether or not such results have been achieved. We are talking about measurability here, and the notion of making sound decisions based on relevant data linked to measurable indicators of

the results we want to accomplish (Guerra, 2003).

This case study illustrates the methodology described above to conduct a needs assessment. The project was a cooperative effort between the Florida State University's Office for Needs Assessment & Planning (ONAP) and the Vocational Rehabilitation Program at Florida Division of Blind Services (FDBS).

## **Florida Division of Blind Services**

FDBS is a state agency under the Florida Department of Education, dedicated to providing a range of services to the state's blind and visually impaired residents through three main programs: The Vocational Rehabilitation Program; The Independent Living Adult Program; and The Children and Families Program. This project was to exclusively involve the Vocational Rehabilitation Program, though ideally, linking the results and efforts of all three programs could have potentially strengthened all three programs, and better served the community.

One of the first challenges of working with this program was moving from providing services as their reason for being, to a focus on ultimate results their clients greatly required and expected. In this case, the Outcomes were societal self-sufficiency<sup>1</sup>, self-reliance<sup>2</sup>, and positive quality of life of current and potential clients. Along with the challenge, there was also great fortune. The two Vocational Rehabilitation Program key decision-makers and contacts for this project had the vision and integrity to recognize that the old ways of seeing and doing would simply produce more of the same, no demonstrable value add-

ed, and consensus was established for revising the current mission. These two individuals were the Director, and the Assistant Director, who along with the Principal Investigator and the Project Manager from ONAP, made up the project team. While other stakeholders, research assistants, and administrative staff were involved throughout the project, the project team was directly responsible for implementing the project plan.

## **Shifting Perspectives**

The shift in focus was manifested by abandoning the old mission, which focused on activities and resources, to a focus on results at the Mega, Macro and Micro levels (Kaufman, 1992, 2000):

### ***Old Mission***

We will advocate, build, implement, integrate services, and deploy the resources necessary to achieve our vision. Our mission will be achieved through responsiveness, quality in all areas, and attention to our customers in need of<sup>3</sup> independent living and employment outcomes. We will never compromise on quality in anything we do.

### ***Newly Identified Results***

*Mega (Societal) Outcomes:* All FDBS clients will be self-sufficient, self-reliant and enjoy a good quality of life.

*Macro (Organizational) Outputs:* All FDBS clients will be continuously employed.

*Micro (Internal) Products:* All FDBS clients will attain their integrated plan of employment objectives (IPE).

Notice that the measurable criteria (i.e., how many clients?) is set in absolute terms (i.e., All). The

idea here is not that the program is expected to reach this target by the following year, or even the year after. The idea is to strive for perfection, with the understanding that success is not determined by a *yes* or *no* answer (e.g., not all clients reached self-sufficiency this year, thus we failed to reach our objective), rather success is measured by how much we reduce our previous gap (e.g., how much closer are we to that target than last year, and the year before, etc.). This is the strategic perspective within which this needs assessment process was implemented.

## Measurable Indicators

With the key organizational results defined, the next task was to identify measurable indicators that could be used to measure these results. To get an accurate representation of each result, a content review of various national and state quality reports, FDBS and Vocational Rehabilitation internal reports and documents, procedures manual, policies

and regulations was conducted, in addition to focused discussions with stakeholders. The result was a comprehensive measurement framework, which consists of a list of measurable indicators, categorized by their associated results and elements. Tables 1-5 illustrate each category and their respective indicators

Table 1 illustrates the operational definition of Mega, which consists of two main categories of results: (1) self-sufficiency/self reliance/positive quality of life; and (2) continued employment where individuals are making at least what it costs them to live. The right column links each result with specific indicators that further define each result. Every internal result (Macro and Micro levels), processes and inputs, must contribute to these Mega results.

Table 2 illustrates the operational definition of Macro, consisting of two main categories of results: (1) successful competitive employment where FDBS clients enjoy the same benefits as their non-visually impaired

**Table 1**  
**FDBS Vocational Rehabilitation Mega Metrics**

OEM Level	Result	Some Indicators
<b>MEGA (Societal) LEVEL RESULTS</b>	Self-Sufficiency/ Self-Reliance/ Quality of Life (QOL)	<ul style="list-style-type: none"> <li>• Government Transfer Payments</li> <li>• Private disability payment Worker's compensation Insurance compensation</li> <li>• Institutionalization where the participants are <math>C \leq P</math> (e.g., sheltered workshops, mental hospitals, drug abuse treatment centers, etc.)</li> </ul>
	Continued Employment, with consumption/ expenses being less than of equal to production/income ( $C \leq P$ )	<ul style="list-style-type: none"> <li>• Income (itemized benefits + expenses) over time</li> <li>• Employment catchment area cost of living or higher</li> <li>• Annual earnings rate &gt; general population</li> </ul>

**Table 2**  
**FDBS Vocational Rehabilitation Macro Metrics**

OEM Level	Result	Some Indicators
MACRO (Organizational) LEVEL RESULTS	Successful Competitive Employment	<ul style="list-style-type: none"> <li>• Employed a minimum of 90 days full-time or part-time (based on Integrated Plan of Employment objectives) Integrated work setting</li> <li>• Benefits for Visually Impaired = those for non-VI (benefits=health, vision, dental, life, disability, other)</li> <li>• Job skills, knowledge, attitudes and abilities (SKAAs) requirement and client SKAAs matched</li> <li>• Employee satisfaction with employment at 5 or higher on 7-point Likert scale survey</li> <li>• Employer satisfaction with employee at 5 or higher on 7-point Likert scale survey</li> </ul>
	Successful Self-Employment or Integration into Homemaker Role, Bureau of Business Enterprise, or Homemaker	<ul style="list-style-type: none"> <li>• Setting certified as fulfilling requirements of IPE by rehabilitation counselor</li> <li>• Client satisfaction with situation at 5 or higher on 7-point Likert scale survey</li> </ul>

counterparts; and (2) Successful self-employment or integration into homemaker role, for those individuals seeking these as personal goals. The right column links each result with specific indicators that should be used to measure each result. These results should contribute to Mega results, and likewise, Micro results, key processes, and inputs, must contribute to these Macro results.

Table 3 operationally defines Micro, and it consists of one key result, successful attainment of each individual's Integrated Plan of Employment (IPE), which includes their overall goals, employment aspirations, strengths, areas for development, and means for development, among other information. The right column lists specific indicators that

should be used to determine the attainment of the IPEs. These results should contribute to Macro, and in turn to Mega results, while key processes and inputs should contribute to these Micro results.

Table 4 defines the key processes involved in reaching the Micro results, and in turn the Macro and Mega results. The two key processes are: (1) the development of IPEs; and (2) the successful implementation of IPEs. The right column lists the specific activities that are involved with the execution of each key process. Everything that is done at this process level must contribute to the desired results at every level.

Finally, Table 5 illustrates the Input level. The column on the right lists all the key resources required to

**Table 3**  
**FDBS Vocational Rehabilitation Micro Metrics**

OEM Level	Result	Some Indicators
MICRO (Team/ Individual) LEVEL RESULTS	Attainment of Individual Plan for Employment (IPE) Objectives	<ul style="list-style-type: none"> <li>• SKAAs attained</li> <li>• Activities of Daily Living training completed</li> <li>• Vocational training completed</li> <li>• Postsecondary education completed</li> <li>• On-the-job integrated training completed                             <ul style="list-style-type: none"> <li>– Social preparation for integration setting completed</li> <li>– Socialization completed</li> <li>– Socialization training completed</li> </ul> </li> <li>• Recreational training completed</li> <li>• Management of medical treatments</li> <li>• Job placement obtained</li> </ul>

carry out the processes presented in Table 4. All resources requested and used, must be directly linked to what is done (Process), produced (Micro), delivered within (Macro) and outside the organization (Mega).

This collection of OEM indicators represents the entire spectrum of key data points required to determine the efficiency and effectiveness of the FDBS Vocational Rehabilitation Program. Beyond whether all these data were available during this study, this list represents an ideal assessment and evaluation framework, and provided a guide for future data collection and tracking efforts.

### **Research or Needs Assessment?**

This project included elements of traditional research as well as needs assessment. One of the first steps the team took was to derive *research questions* that, beyond identifying gaps, would allow for deeper understanding of the current situation of this program. The following are two key questions the team sought to answer:

1. Are there any significant differences in self-sufficiency (as indicated by reported income and food stamp data) among DBS clients with closed cases with regards to their:

- a. Gender
- b. Race
- c. Age
- d. Education levels
- e. Type of Disability
- f. Closure status (successful: client was hired vs. unsuccessful: client dropped out of program)

2. If significant differences in levels of self-sufficiency are found, what, if any, are the differences in terms of services provided for each group?

Three levels of self-sufficiency were derived:

1. Zero reported income for year in question.
2. Below State average for year in question.
3. At or above State average for year in question.

**Table 4**  
**FDBS Vocational Rehabilitation Process Metrics**

OEM Level	Key Processes	Some Indicators
<b>Processes</b>	Developing IPEs	<ul style="list-style-type: none"> <li>• Listing all options and steps for individual to complete IPE</li> <li>• Determining client strengths, priorities, concerns, abilities, capabilities, career interests</li> <li>• Determining client current used SKAAs</li> <li>• Facilitating client informed choice of services, service providers and vocational goal</li> <li>• Determining all physical/mental restorative measures</li> <li>• Approving plan</li> </ul>
	Implementing IPEs	<ul style="list-style-type: none"> <li>• Delivering services as outlined on IPE</li> <li>• Scheduling and carrying out Progress Reviews (annually at minimum)</li> <li>• Amending plan as required</li> </ul>
	Determining Eligibility (These are the processes involved. If completed to criterion levels, they become Products.)	<p><i>Determining Ineligible criteria that might be used</i></p> <ul style="list-style-type: none"> <li>• No bilateral eye pathology as certified by MD</li> <li>• Individual has no impediment to employment</li> <li>• Individual does not require VR services</li> <li>• Individual cannot benefit from VR services because disability is too severe as evidenced by trial work experience and extended evaluation</li> <li>• Referring individual to appropriate agency</li> </ul> <p><i>Determining Eligible</i></p> <ul style="list-style-type: none"> <li>• Determining Bilateral VI / Determining Bilateral VI as primary disability / Determining Bilateral VI as impediment to employment</li> <li>• Determining individual to require VR services to obtain employment</li> </ul> <p><i>Not Determining Eligibility</i></p> <ul style="list-style-type: none"> <li>• Unable to locate</li> <li>• Refused services for one</li> <li>• Uncooperativeness</li> <li>• Death</li> <li>• Institutionalization</li> <li>• Moving</li> <li>• Referral to appropriate agency</li> </ul>

Having previously established that the “what should be” side of the needs assessment would be based on absolute targets (e.g., 100% or 0%), the next task was to determine the “what is,” or current level of these indicators. This, in turn, would allow us to answer the research questions above. To this end, the next step

was to identify the appropriate data sources.

### **Data Sources**

A number of potential data sources was identified, which included census data, state government reports, state employment services, community rehabilitation programs, community

**Table 5**  
**FDBS Vocational Rehabilitation Input Metrics**

OEM Level		Some Indicators
<b>INPUTS</b>	Key Resources Involved	<ul style="list-style-type: none"> <li>• Applicant histories</li> <li>• Medical records</li> <li>• Applicant work histories</li> <li>• Educational histories</li> <li>• SSA records</li> <li>• Counselor observations</li> <li>• Economic situation (including transfer payments)</li> <li>• Individual and family information</li> <li>• Client input</li> <li>• Training reports</li> <li>• Work reviews</li> <li>• Trial work experiences</li> <li>• Career/Interest inventories</li> <li>• Vocational assessment</li> <li>• Labor market</li> <li>• FDBS policies and procedures</li> <li>• Funding for medical treatments</li> <li>• Federal and state rules, regulations and laws</li> <li>• Referrals to FDBS</li> <li>• Community resources <ul style="list-style-type: none"> <li>– Transportation</li> <li>– Housing</li> <li>– Community Rehabilitation Programs (CRP)</li> </ul> </li> <li>• DBS human resources</li> </ul> <p><i>Levels of federal and state funding</i></p>

mental health centers, correctional institution, court or officer (federal, state and local), other public and/or private health department, organization or agency (including public health nurse or clinic), other state vocational rehabilitation agencies, and other general public and/or private organizations or agencies.

The actual data source used was the Florida Education and Training Placement Information Program (FETPIP). FETPIP is a data collection system that obtains follow-up data on former students and others. The team selected this as its sole data source because it tracked many of the data sought, making the data collection process much more

efficient. The information included income, employment, continuing post-secondary education, military, public assistance participation, and incarceration data, all categorized by key demographic variables. Additionally, FETPIP has a reputation for the accurateness and currency of the data it tracked.

Perhaps the most challenging aspect of collecting these data was the sheer volume of data provided to the team. FETPIP collected and stored the data by quarter, with specific figures, for specific variables, for each individual. Considerable effort was put into aggregating the data, and finally rendering it into a manageable and meaningful shape.

## Data Collection Approach

Trend data would be collected for all cases closed, successfully or unsuccessfully, between 1993 and 1999 (this was FETPIP's data availability range). A data file containing Social Security numbers and other relevant demographic variables was provided to FETPIP by FDBS in order to obtain data indicative of levels of self-sufficiency, self-reliance and quality of life for all of the FDBS Vocational Rehabilitation Program's clients with cases closed between 1993 and 1999. Using this database, the team was able to track wages obtained from covered employment (i.e., employment reported to the State of Florida) and food stamp consumption, both indicators of self-sufficiency, only for those cases closed between the FDBS fiscal years 1996/1997 and 1998/1999. These groups were ultimately used because they were found to contain the most complete data sets.

## Sample

The initial aim of the project was to assess the needs of served, underserved and unserved FDBS clients. The assumption was that by analyzing whether there were significant differences between groups served by the Vocational Rehabilitation program, the underserved population would be identified. The unserved population, however, remains to be investigated, as our data was limited to individuals who had gone through the VR program.

The total number of closed cases tracked for this study was 2546. This figure is divided into each of the fiscal years as follows:

- *FY1996*: 802 (497 successfully closed; 305 unsuccessfully closed)

- *FY1997*: 855 (553 successfully closed; 302 unsuccessfully closed)
- *FY1998*: 889 (515 successfully closed; 374 unsuccessfully closed)

At the time, the Vocational Rehabilitation Program system, defined a successfully closed case as one where the client had completed their integrated plan of employment, and obtained employment—regardless of whether they maintained employment, or were earning enough income to make a living.

## Findings

As a preliminary step to answering the research questions, the actual number of cases at each level of self-sufficiency was counted. Using 1999, the most current year tracked and the total sample of 2546, the following gaps were found:

- *Gaps at the Mega level* (Self-sufficiency, inferred earning at or above the State average): With 106 individuals being at or above the state average, there is a gap of 2400 at the Mega level.
- *Gaps at the Macro level* (Employment, inferred by reported wages at any level): With 1031 individuals reporting wages, there is a gap of 1515 at the Macro level.
- *Gaps at the Micro level* (Attainment of IPE Objectives, inferred through successful closure status): With 1565 successfully closed cases, there is a gap of 981 at the Micro level.

Notice that the more narrow our view of success is, the better our results seem. Conversely, the wider our view, the better we are able to realistically see the actual contribu-



tions the organization as a whole is making.

Analysis of Variance (ANOVA) tests were used to answer the first research question. Table 6 lists each year studied, and the variables of interest. The asterisk (\*) indicates significant differences in average income. Based on the average income earned during 1997, significant differences were detected for two categories. Individuals in one of the age categories (66-75) appeared to earn higher wages, and likewise, successfully closed cases appeared to be making slightly higher wages than unsuccessfully closed cases. Based on the average income earned during 1998, the only significant difference detected was among closure status, with successfully closed cases once again earning slightly higher, on average, than unsuccessfully closed cases. The same was true for income earned during 1999.

ANOVA was also used to answer the second research question, where results revealed no significant differences among services

provided between the three self-sufficiency levels.

After a discussion of these findings between ONAP and FDBS, it was determined that it was important to determine whether there were significant differences between earners and non-earners<sup>4</sup>. With a nominal variable under study (i.e., earners and non-earners), Chi Square was used for statistical testing. Analysis was conducted for each fiscal year group, further subdivided by each of the three available data years.

With regard to clients' earning status (earners vs. non-earners), significant differences were consistently found for all fiscal year groups, across all data years between: successfully closed and unsuccessfully closed cases and age groups. Table 7 summarizes the analysis results.

## Concluding Remarks

It is worth noting, once again, that these data were limited to those individuals who were in the FDBS system (whether closed successfully or unsuccessfully). These data does not

**Table 6**  
**Significant Differences Detected by ANOVA Testing**

Factors	1997 Calendar Year Mean Income	1998 Calendar Year Mean Income	1998 Calendar Year Mean Income
Gender			
Race			
Age	*		
Education Level			
Disability Code			
Closure Status	*	*	*
Fiscal year closed			

\* Significant differences at the .05 level

**Table 7**  
**Chi Square Results Summary**

Factors	Cases closed during FY 1996			Cases closed during FY 1997			Cases closed during FY 1998		
	1997 Wages	1998 Wages	1999 Wages	1997 Wages	1998 Wages	1999 Wages	1997 Wages	1998 Wages	1999 Wages
Gender				*	*	*			
Race									
Age	*	*	*	*	*	*	*	*	*
Disability Code				*			*	*	
Closure Status	*	*	*	*	*	*	*	*	*

\* Significant at the .05 level.

include those who have never been through the program. Thus, future assessment and evaluation efforts should include efforts to identify this population and their needs.

It is interesting to note that differences were more apparent in comparisons between earners and non-earners, than among the earners (in terms of their average income). The data did not support any systematic bias toward any one group, however, age and case closure status did seem to play a factor in wages. While one could intuitively argue that wages tend to increase with age, no clear clues were found during this study about the causes for such a difference. In the case of closure status, this too seems to be consistent with what is expected, given that a successful closure status indicates an individual has met the objectives of their Integrated Plan of Employment. Chances are, these individuals are overall better prepared for employment and higher wages. However, once again,

no conclusive evidence was found to support this conclusion.

Among the recommendations, it was suggested that a causal analysis be used to find the reasons for such disparities. Though causal analysis was not a formal part of this project, the assessment team created data collection tools (e.g., questionnaires and interview protocols) based on key performance variables (e.g., information/knowledge, motivation/motives, environment, selection, etc.) supported by respected analysis literature (Gilbert, 1978; Harless, 1970; Mager & Pipe, 1970) in order to support future analysis efforts.

A key FDBS Vocational Rehabilitation administrator led this task upon formal completion of this project, and later reported that one of the biggest factors impacting performance was found to be the lack of clear expectations for the rehabilitation counselors. While leadership assumed counselors understood the ultimate goal was for clients to achieve sustained employment with accept-

able wages, their efforts were focused on case management (e.g., making phone calls, getting clients interviews, directing them to instructional courses, etc.), without regard to the outcome. Another factor impacting their performance was the measure of success, which was the number of closed cases, rather than the number of clients who achieved sustained employment at acceptable wages. That is, recidivism was not being tracked, which meant that the same client could potentially come back into the system numerous times without success, and without it reflecting on the competence of the people who were, in theory, responsible for supporting their self-sufficiency, self-reliance, and quality of life goals.

Conducting this study and finding data that had such radical implications for decision-making was life altering for many of the stakeholders, who up until that point were heavily focused on processes and resources, or at best, on Micro-level results. Appropriate actions were taken to improve the performance system, but overall, one of the most significant contributions of this project was a new-found focus on results, valuable results, and appropriate measures of success.

## Notes

<sup>1</sup>The principal indicator of self-sufficiency is an individual's consumption being less than or equal to their production ( $c \leq p$ ).

<sup>2</sup>Self-reliance refers to an individual being independent of the care, custody or control of any other individual or organization.

<sup>3</sup>Based on Kaufman (2000), the use of "need" in this mission demonstrates a lack of understanding

in the differences between ends and means.

<sup>4</sup>As opposed to the previous analysis, which examined differences between different groups with regards to their average income, using both earners and non-earners for the calculation of averages.

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